TC-FMCH-500
Hardware User Manual

Rev.1.01

Revision History

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Table of Contents

1. Related Documents and Accessories 8
2. Overview 8
3. Feature 8
4. Cable Specification 8
4.1. Cable block diagram 8
4.2. External View of the Cable 9
4.3. Signal connection 10
5. Appendix 11

List of Figures

Figure 4-1 Block Diagram 8
Figure 4-2 Cable over view 9
Figure 4-3 Cable end..... 9
Figure 5-1 Stacking Image 11
Figure 5-2 Parallel use 11

Introduction

Thank you for purchasing the **TC-FMCH-500** board. Before using the product, be sure to carefully read this user manual and fully understand how to correctly use the product. First read through this manual, then always keep it handy.

SAFETY PRECAUTIONS

Be sure to observe these precautions

Observe the precautions listed below to prevent injuries to you or other personnel or damage to property.

- **Before using the product, read these safety precautions carefully to assure correct use.**
- **These precautions contain serious safety instructions that must be observed.**
- **After reading through this manual, be sure to always keep it handy.**

The following conventions are used to indicate the possibility of injury/damage and classify precautions if the product is handled incorrectly.

Danger	Indicates the high possibility of serious injury or death if the product is handled incorrectly.
Warning	Indicates the possibility of serious injury or death if the product is handled incorrectly.
Caution	Indicates the possibility of injury or physical damage in connection with houses or household goods if the product is handled incorrectly.

The following graphical symbols are used to indicate and classify precautions in this manual.
(Examples)

	Turn off the power switch.
	Do not disassemble the product.
	Do not attempt this.

Warning	
	In the event of a failure, disconnect the power supply. If the product is used as is, a fire or electric shock may occur. Disconnect the power supply immediately and contact our sales personnel for repair.
	If an unpleasant smell or smoking occurs, disconnect the power supply. If the product is used as is, a fire or electric shock may occur. Disconnect the power supply immediately. After verifying that no smoking is observed, contact our sales personnel for repair.
	Do not disassemble, repair or modify the product. Otherwise, a fire or electric shock may occur due to a short circuit or heat generation. For inspection, modification or repair, contact our sales personnel.
	Do not touch a cooling fan. As a cooling fan rotates in high speed, do not put your hand close to it. Otherwise, it may cause injury to persons. Never touch a rotating cooling fan.
	Do not place the product on unstable locations. Otherwise, it may drop or fall, resulting in injury to persons or failure.
	If the product is dropped or damaged, do not use it as is. Otherwise, a fire or electric shock may occur.
	Do not touch the product with a metallic object. Otherwise, a fire or electric shock may occur.
	Do not place the product in dusty or humid locations or where water may splash. Otherwise, a fire or electric shock may occur.
	Do not get the product wet or touch it with a wet hand. Otherwise, the product may break down or it may cause a fire, smoking or electric shock.
	Do not touch a connector on the product (gold-plated portion). Otherwise, the surface of a connector may be contaminated with sweat or skin oil, resulting in contact failure of a connector or it may cause a malfunction, fire or electric shock due to static electricity.

Caution	
	Do not use or place the product in the following locations. • Humid and dusty locations • Airless locations such as closet or bookshelf • Locations which receive oily smoke or steam • Locations exposed to direct sunlight • Locations close to heating equipment • Closed inside of a car where the temperature becomes high • Staticky locations • Locations close to water or chemicals Otherwise, a fire, electric shock, accident or deformation may occur due to a short circuit or heat generation.
	Do not place heavy things on the product. Otherwise, the product may be damaged.

■ Disclaimer

This product is a board intended for FMC interface function. Tokyo Electron Device Limited assumes no responsibility for any damages resulting from the use of this product for purposes other than those stated.

Even if the product is used properly, Tokyo Electron Device Limited assumes no responsibility for any damages caused by:

(1) Earthquake, thunder, natural disaster or fire resulting from the use beyond our responsibility, acts by a third party or other accidents, the customer's willful or accidental misuse or use under other abnormal conditions.
(2) Secondary impact arising from use of this product or its unusable state (business interruption or others)
(3) Use of this product against the instructions given in this manual.
(4) Malfunctions due to connection to other devices.

Tokyo Electron Device Limited assumes no responsibility or liability for:

(1) Erasure or corruption of data arising from use of this product.
(2) Any consequences or other abnormalities arising from use of this product, or
(3) Damage of this product not due to our responsibility or failure due to modification

This product has been developed by assuming its use for research, testing or evaluation. It is not authorized for use in any system or application that requires high reliability.

Repair of this product is carried out by replacing it on a chargeable basis, not repairing the faulty devices. However, non-chargeable replacement is offered for initial failure if such notification is received within two weeks after delivery of the product.

The specification of this product is subject to change without prior notice.

The product is subject to discontinuation without prior notice.

1. Related Documents and Accessories

Related documents:

All documents relating to this board can be downloaded from our website. Please see attached paper on the products.

2. Overview

TC-FMCH-500 is cable for FMC to FMC.

3. Feature

- FMC(HPC) connector on each cable-end.
- Cable length is 500mm

4. Cable Specification

4.1. Cable block diagram

Following figure shows block diagram of TC-FMCH-500

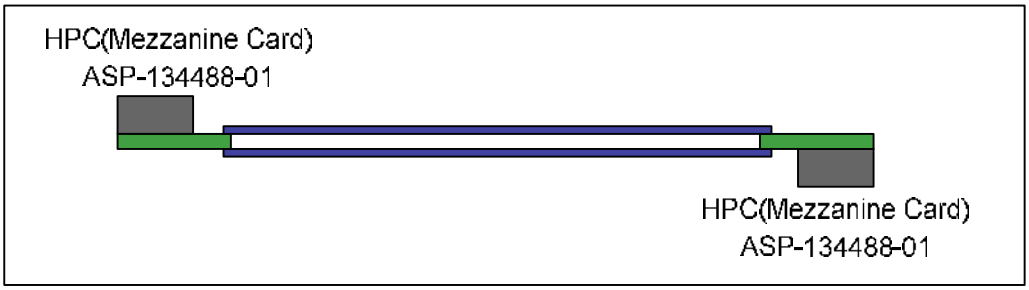

Figure 4-1 Block Diagram

4.2. External View of the Cable

Figure 4-2 Cable over view

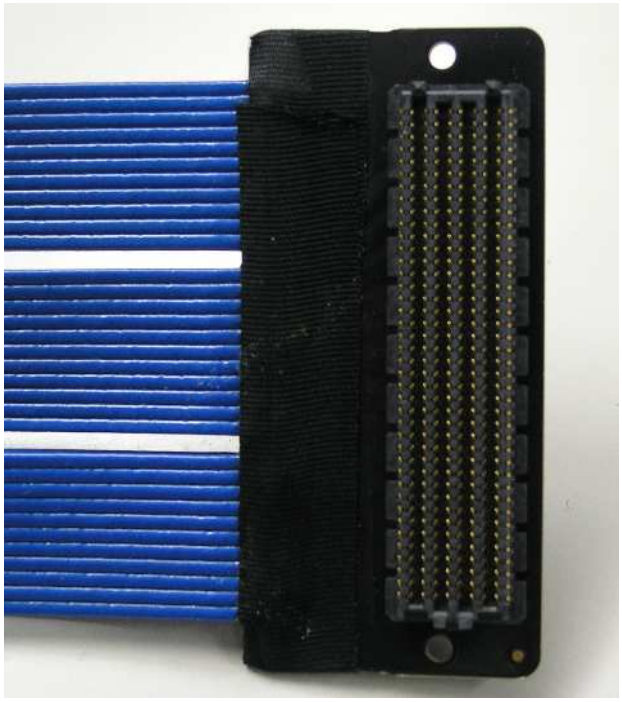

Figure 4-3 Cable end

4.3. Signal connection

Following signals are connected each other but other signals are not connected.

Straight connection

- CLK0_M2C_P/CLK0_M2C_N/CLK1_M2C_P/CLK1_M2C_N
- LA**_P/LA**_N(** is 0～33. Total 34pair = 68 single-end signals)
- GBTCLK0_M2C_P / GBTCLK0_M2C_N
- GBTCLK1_M2C_P / GBTCLK1_M2C_N
- GMD of ROW C, D, G, H.
- TCK,TDI,TDOTMS,TRST_L,GA0,GA1,SCL,SDA

Cross connection with AC coupling capacitor(0.1uF)

- DP0_C2M_P - DP0_M2C_P / DP0_C2M_N - DP0_M2C_N
- DP1_C2M_P - DP1_M2C_P / DP1_C2M_N - DP1_M2C_N
- DP2_C2M_P - DP2_M2C_P / DP2_C2M_N - DP2_M2C_N
- DP3_C2M_P - DP3_M2C_P / DP3_C2M_N - DP3_M2C_N
- DP4_C2M_P - DP4_M2C_P / DP4_C2M_N - DP4_M2C_N
- DP5_C2M_P - DP5_M2C_P / DP5_C2M_N - DP5_M2C_N
- DP6_C2M_P - DP6_M2C_P / DP6_C2M_N - DP6_M2C_N
- DP7_C2M_P - DP7_M2C_P / DP7_C2M_N - DP7_M2C_N
- DP8_C2M_P - DP8_M2C_P / DP8_C2M_N - DP8_M2C_N
- DP9_C2M_P - DP9_M2C_P / DP9_C2M_N - DP9_M2C_N

5. Appendix

Following figures show how to use this cable.

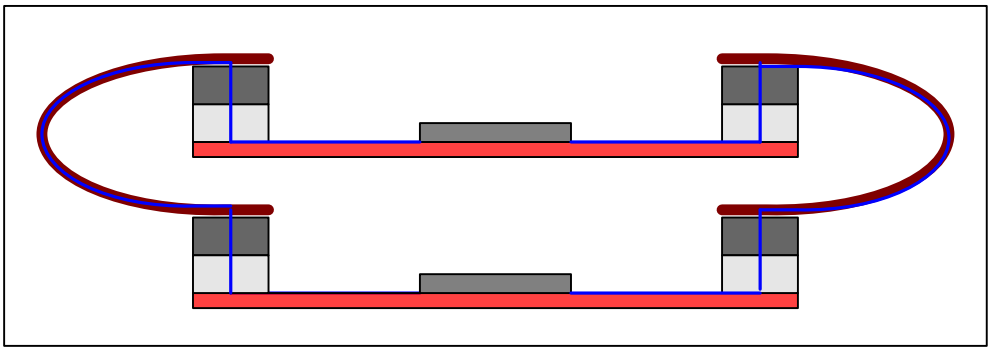

Figure 5-1 Stacking Image

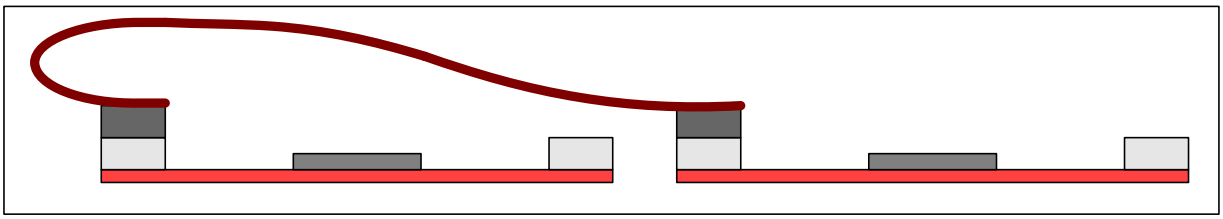

Figure 5-2 Parallel use

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